

#6

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## RAW SEQUENCE LISTING

DATE: 08/16/2001

PATENT APPLICATION: US/09/596,958

TIME: 13:17:19

Input Set : A:\C32861.app

Output Set: N:\CRF3\08162001\I596958.raw

3 <110> APPLICANT: Kim, Jihyun Francis  
4 Beer, Steven V.  
6 <120> TITLE OF INVENTION: HYPERSENSITIVE RESPONSE ELICITOR FROM ERWINIA AMYLOVORA  
7 AND ITS USE  
9 <130> FILE REFERENCE: 19603/3286  
11 <140> CURRENT APPLICATION NUMBER: 09/596,958  
12 <141> CURRENT FILING DATE: 2000-06-20  
14 <150> PRIOR APPLICATION NUMBER: 09/120,927  
15 <151> PRIOR FILING DATE: 1998-07-22  
17 <150> PRIOR APPLICATION NUMBER: 60/055,108  
18 <151> PRIOR FILING DATE: 1997-08-06  
20 <160> NUMBER OF SEQ ID NOS: 3  
22 <170> SOFTWARE: PatentIn Ver. 2.1  
24 <210> SEQ ID NO: 1  
25 <211> LENGTH: 1344  
26 <212> TYPE: DNA  
27 <213> ORGANISM: Erwinia amylovora  
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32 cggcaaacca ttgagcaaat ggctcaatta ttggcggaac tgtaaagtc actgctatcg 180  
33 ccacaatcag gtaatgcggc aaccggagcc ggtggcaatg accagactac aggagttggt 240  
34 aacgctggcg gcctgaacgg acgaaaaggc acagcaggaa ccaactccga gtctgacagt 300  
35 cagaacatgc tgagtgaatg gggcaacaac gggctggatc aggccatcac gcccgatggc 360  
36 cagggcgggc ggcagatcgg cgataatcct ttactgaaag ccatgctgaa gcttattgca 420  
37 cgcgatgatg acggccaaag cgatcagttt ggccaacctg gtacgggcaa caacagtgcc 480  
38 tcttcgggta cttcttcacg tggcggttcc ccttttaacg atctatcagg ggggaaggcc 540  
39 ccttcgggca actcccttc cggcaactac tctcccgta gtaccttctc accccatcc 600  
40 acgccaacgt cccctacctc accgcttgat ttccttctt ctccaccaa agcagccggg 660  
41 ggcagcacgc cggtaaccga tcactcctgac cctgttggtg gcgcgggcat cggggccgga 720  
42 aattcgggtg ccttcaccag cgcggcgct aatcagacg tgctgcatga caccattacc 780  
43 gtgaaagcgg gtcaggtggt tgatggcaaa ggacaaacct tcaccgccg ttcagaatta 840  
44 ggcgatggcg gccagttcga aaaccagaaa ccgctgttta tactggaaga cggtgccagc 900  
45 ctgaaaaacg tcaccatggg cgacgacggg gcggtatggt ttcattctta cggtgatgcc 960  
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47 agcgcgggca aaaaatccca cgttgaaatc actaacagtt ccttcgagca cgcctctgac 1080  
48 aagatcctgc agctgaatgc cgatactaac ctgagcggtg acaacgtgaa ggccaaagac 1140  
49 ttggtacttt ttgtacgcac taacggcggt caacagggtg actgggatct gaatctgagc 1200  
50 catatcagcg cagaagacgg taagtctcgt ttcgttaaaa gcgatagcga ggggctaaac 1260  
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58 <213> ORGANISM: Erwinia amylovora  
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64 Phe Gln Ser Gly Gly Asp Asn Gly Leu Gly Gly His Asn Ala Asn Ser
65           20           25           30
67 Ala Leu Gly Gln Gln Pro Ile Asp Arg Gln Thr Ile Glu Gln Met Ala
68           35           40           45
70 Gln Leu Leu Ala Glu Leu Leu Lys Ser Leu Leu Ser Pro Gln Ser Gly
71           50           55           60
73 Asn Ala Ala Thr Gly Ala Gly Gly Asn Asp Gln Thr Thr Gly Val Gly
74 65           70           75           80
76 Asn Ala Gly Gly Leu Asn Gly Arg Lys Gly Thr Ala Gly Thr Thr Pro
77           85           90           95
79 Gln Ser Asp Ser Gln Asn Met Leu Ser Glu Met Gly Asn Asn Gly Leu
80           100           105           110
82 Asp Gln Ala Ile Thr Pro Asp Gly Gln Gly Gly Gly Gln Ile Gly Asp
83           115           120           125
85 Asn Pro Leu Leu Lys Ala Met Leu Lys Leu Ile Ala Arg Met Met Asp
86           130           135           140
88 Gly Gln Ser Asp Gln Phe Gly Gln Pro Gly Thr Gly Asn Asn Ser Ala
89 145           150           155           160
91 Ser Ser Gly Thr Ser Ser Gly Gly Ser Pro Phe Asn Asp Leu Ser
92           165           170           175
94 Gly Gly Lys Ala Pro Ser Gly Asn Ser Pro Ser Gly Asn Tyr Ser Pro
95           180           185           190
97 Val Ser Thr Phe Ser Pro Pro Ser Thr Pro Thr Ser Pro Thr Ser Pro
98           195           200           205
100 Leu Asp Phe Pro Ser Ser Pro Thr Lys Ala Ala Gly Gly Ser Thr Pro
101           210           215           220
103 Val Thr Asp His Pro Asp Pro Val Gly Ser Ala Gly Ile Gly Ala Gly
104 225           230           235           240
106 Asn Ser Val Ala Phe Thr Ser Ala Gly Ala Asn Gln Thr Val Leu His
107           245           250           255
109 Asp Thr Ile Thr Val Lys Ala Gly Gln Val Phe Asp Gly Lys Gly Gln
110           260           265           270
112 Thr Phe Thr Ala Gly Ser Glu Leu Gly Asp Gly Gly Gln Ser Glu Asn
113           275           280           285
115 Gln Lys Pro Leu Phe Ile Leu Glu Asp Gly Ala Ser Leu Lys Asn Val
116           290           295           300
118 Thr Met Gly Asp Asp Gly Ala Asp Gly Ile His Leu Tyr Gly Asp Ala
119 305           310           315           320
121 Lys Ile Asp Asn Leu His Val Thr Asn Val Gly Glu Asp Ala Ile Thr
122           325           330           335
124 Val Lys Pro Asn Ser Ala Gly Lys Lys Ser His Val Glu Ile Thr Asn
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127 Ser Ser Phe Glu His Ala Ser Asp Lys Ile Leu Gln Leu Asn Ala Asp
128           355           360           365
130 Thr Asn Leu Ser Val Asp Asn Val Lys Ala Lys Asp Phe Gly Thr Phe
131           370           375           380
133 Val Arg Thr Asn Gly Gly Gln Gln Gly Asn Trp Asp Leu Asn Leu Ser
134 385           390           395           400

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136 His Ile Ser Ala Glu Asp Gly Lys Phe Ser Phe Val Lys Ser Asp Ser  
137                   405                   410                   415  
139 Glu Gly Leu Asn Val Asn Thr Ser Asp Ile Ser Leu Gly Asp Val Glu  
140                   420                   425                   430  
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152 <221> NAME/KEY: unsure  
153 <222> LOCATION: (8)  
154 <223> OTHER INFORMATION: n.at any position is unknown  
156 <400> SEQUENCE: 3

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VERIFICATION SUMMARY

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L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3